

REMARKS/ARGUMENTS

Reconsideration and allowance of this application are respectfully requested.
Currently, claims 2-23 and 28-31 are pending in this application.

Premature Finality of the Office Action:

The grounds of rejection for at least independent claims 7, 13 and 18 changed in the Office Action. The Office Action indicated that Applicant's amendment (Applicant's January 28, 2004 Response) necessitated the new grounds of rejection. This is not possible since claims 7, 13 and 18 were not amended in Applicant's January 28, 2004 Response. That is, Applicant's amendment could not have possibly necessitated the new grounds of rejection of claims 7, 13 and 18 since there was no amendment to these claims. Applicant therefore submits that the finality of the April 26, 2004 Office Action is clearly premature. Entry of the above claim amendments is therefore in order.

Rejections Under 35 U.S.C. §103:

Claims 2, 7, 8, 13, 18, 19 and 23-31 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Hubbard et al (U.S. '961, hereinafter "Hubbard") in view of Bellin et al (U.S. '460, hereinafter "Bellin"). Applicant respectfully traverses this rejection.

In order to establish a prima facie case of obviousness, all of the claimed limitations must be taught or suggested by the prior art and there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to

combine reference teachings. Applicant submits that the combination of Hubbard and Bellin fails to teach or suggest all of the claimed limitations. In particular, the combination fails to teach or suggest a multifunction apparatus comprising (i) a plurality of transformers each of which operates with respect to one phase of an electrical circuit and includes its own primary winding and its own secondary winding so that the multifunction apparatus includes a plurality of primary windings and a plurality of secondary windings, and (ii) a plurality of switching circuits, each circuit being coupled to a respective secondary winding of a respective transformer and adapted to switch to multiple positions depending on whether a current flowing through the primary winding inductively coupled to the secondary winding of that respective transformer is in a metering range or an overcurrent range, as required by independent claim 2 and its dependents. Independent claims 7 and 13 and their respective dependents require similar features. Applicant further submits that the combination of Hubbard and Bellin fails to teach or suggest an apparatus comprising an A.C. sub-system having (i) a plurality of transformers, each transformer operating with respect to one phase of an electric circuit and each transformer including its own primary winding and its own secondary winding so that the A.C. sub-system comprises a plurality of primary windings and a plurality of secondary windings, and (ii) a plurality of switching circuits, each switching circuit being respectively coupled to a secondary winding of one of the plurality of transformers and switching to multiple positions depending on whether a current flowing through the primary winding inductively coupled to the secondary winding of that transformer is in a

metering range or an overcurrent range, as required by independent claim 18 and its dependents.

The above features are supported by, for example (but without limitation), Fig. 2 of the present application. Fig. 2 illustrates a plurality of transformers T1, T2, T3 respectively operating with respect to one phase of an electric circuit ("PHASE 1", "PHASE 2", "PHASE 3"). Each of the plurality of transformers T1, T2 and T3 includes its own primary winding and secondary winding. The system illustrated in Fig. 2 therefore includes a plurality of primary windings and a plurality of secondary windings. A plurality of switching circuits U2, U3, U4 are coupled to respective secondary windings of transformers T1, T2 and T3. Switching circuits are adapted to switch depending on whether a current flowing through the primary winding inductively coupled to the respective secondary winding of that transformer is in a metering range or an overcurrent range. Accordingly, switching circuit U2 is adapted to switch to multiple positions depending on whether a current flowing through a primary winding of transformer T1 is in a metering range or an overcurrent range. Switching circuit U3 is adapted to switch to multiple positions depending on whether a current flowing through a primary winding of transformer T2 is in a metering range or an overcurrent range. Switching circuit U4 is adapted to switch to multiple positions depending on whether a current flowing through a primary winding of transformer T3 is in a metering range or an overcurrent range.

The Office Action admits “Hubbard does not specifically disclose a switching circuit coupled to each of a plurality of transformers adapted to switch to multiple positions depending on whether the current of the transformer is in a metering range or an overcurrent range, wherein one of the positions enables the components to perform metering and another position enables the system to perform the digital fault recording function.” (See page 3, lines 4-9 of the Office Action). Bellin fails to remedy this deficiency of Hubbard. Indeed, the Office Action admits “...Bellin teaches a multi-tap transformer as opposed to a plurality of transformers forming an A.C. sub-system.” (See page 3, lines 17-18 of the Office Action). Rather than teaching a plurality of transformers (each operating with respect to one phase of an electric circuit) coupled respectively to a plurality of switching circuits, Bellin merely teaches one multi-tap transformer. Accordingly, even if Hubbard and Bellin were combined as proposed by the Office Action, the combination would not have taught or suggested all of the claimed limitations.

The Office Action alleges that “Although Bellin teaches a multi-tap transformer as opposed to a plurality of transformers forming an A.C. sub-system, it is considered to be inherent that a multi-tap transformer is actually an A.C. sub-system formed of a plurality of transformers including one untapped primary winding [and] a plurality of tapped secondary windings (See for example, U.S. Patent Application Publication No. 2001/0048356 to Owen, Figures 1-3).” (See page 3, lines 17-22 of the Office Action). Applicant respectfully disagrees with this allegation. That is, a plurality of transformers

is clearly not “inherent” from a single transformer having a primary winding and a plurality of tapped secondary windings. The tap changing mechanism of the multi-tap transformer (as disclosed by Bellin) is a device fitted to the transformer for regulating the output voltage to required levels. The changing tap allows for the regulation of output voltage to be varied. This is quite different than a plurality of transformers each of which is operated with respect to a phase of an electric circuit as claimed.

Moreover, independent claims 2, 7, 13 and 18 have been clarified to require that each transformer includes its own primary and secondary winding. Each of these claims therefore requires a plurality of primary windings (one for each of the plurality of transformers). As admitted by the Office Action, Bellin merely discloses one (i.e., a single) untapped primary winding and a plurality of tapped secondary windings. Bellin therefore fails to teach or suggest a plurality of primary windings, let alone determining whether a plurality of currents flowing respectively through the primary windings of the plurality of transformers (i.e., each of the primary windings has its own current flowing therethrough) is in a metering range or an overcurrent range. In contrast, Bellin discloses a single primary winding having one current at a given time.

As a (nonlimiting) example of the invention described with respect to Fig. 2, a current flowing through the primary winding of transformer T1 is used to switch switching circuit U2, another current flowing through the primary winding of transformer T2 is used to switch switching circuit U3 and yet another current flowing through the primary winding of transformer T3 is used to switch switching circuit U4. This

exemplary but non-limiting implementation illustrated in Fig. 2 of the application therefore involves three currents (one current flowing through each of the three primary windings of transformers T1, T2 and T3). In marked contrast, Bellin and Owen discloses a single primary winding as admitted in the Office Action and thus only one current.

Accordingly, Applicant submits that claims 2, 7, 8, 13, 18, 19 and 23-31 are not “obvious” over Hubbard in view of Bellin and therefore respectfully requests that the rejection of these claims under 35 U.S.C. §103 be withdrawn.

Claims 3-5, 9-10, 14-15, 17 and 20-21 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Hubbard in view of Bellin and further in view of Tomlinson (U.S. ‘189). Claim 6 was rejected under 35 U.S.C. §103 as allegedly being unpatentable over Hubbard in view of Bellin and further in view of Larsen et al (U.S. ‘256, hereinafter “Larsen”). Claims 11, 12, 16 and 22 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Hubbard in view of Bellin and Tomlinson and further in view of Larsen. Since each of these claims depends from one of independent claims 2, 7, 13 and 18, Applicant submits that the above comments with respect to the combination of Hubbard and Bellin apply equally to these claims. Tomlinson and/or Larsen as tertiary references (or even fourth references in some instances) fail to remedy the above described deficiencies. Applicant therefore respectfully requests that the rejection of these claims under 35 U.S.C. §103 be withdrawn.

GAMVRELIS et al.
Application No. 09/878,920
July 19, 2004

Conclusion:

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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